THE Soybean Digest

HAVE YOU MADE HOTEL RESERVATION?

26th Annual Convention

AMERICAN SOYBEAN ASSOCIATION

AUGUST 29-31

See Pages 10-11

Official Publication

OF

THE AMERICAN SOYBEAN ASSOCIATION

VOLUME 6 • NUMBER 9 JULY • 1946

STEINLITE MOISTURE TESTER

The Steinlite one minute Moisture Tester is EASY TO USE . . . like tuning a radio. The Steinlite operates on the radio frequency impedance principle, and is checked against official oven methods. No technical knowledge necessary. With practice you can make a test in one minute. Sold on 10-day trial basis. No money down. Immediate shipment.

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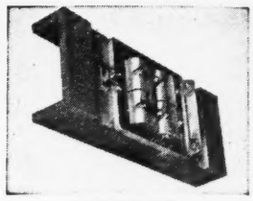

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FOR THE SEED, GRAIN, FEED AND COTTON GIN TRADES

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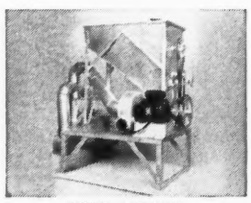

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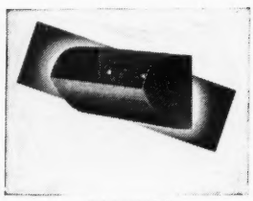

CALUMET ELEVATOR CUPS

Elevator bucket with the logarithmic curve (a patented feature) conforms with the natural flow of grain. Lip formed in straight line tangent to curved part scoops up full load, aids in discharge. Form of top ends permit capacity load, prevents spilling. Bolt holes, a trifle above center, give better balance. Write for bulletin No. 35 on sizes and prices.

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Seedburo stocks over 500 different items of Equipment and Supplies. All are rigidly inspected and fully guaranteed. Government standards are strictly adhered to where available. The Seedburo Catalog and Reference book contains official directions for grading grain and other useful facts. If you do not have a copy, write today.

SEEDBURO

EQUIPMENT COMPANY

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THE Soybean Digest

REG. U. S. PAT. OFF.

GEO. M. STRAYER, Editor KENT PELLETT, Managing Editor

Publishers' Representatives: Ewing Hutchison Co., Chicago

Vol. 6 JULY ☆ 1946 No. 9

Published on the 15th of each month at Hudson, Iowa, by the American Soybean Association. Entered as second class matter November 20, 1940, at the postoffice at Hudson, Iowa, under the Act of March 3, 1879. Forms close on 1st of month. Subscription price to association members, $1.50 per year; to non-members, $2.00 per year; Canada and other members of the Pan-American Union, $2.50; other foreign, $3.00.

IN THIS ISSUE

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IN THIS ISSUE

EDITOR'S DESK

Post-OPA Prospects It now seems apparent that the OPA is a thing of the past. With its demise the governmental controls over the prices of most of the commodities of trade passed out of the picture. There have been some increases in prices, but as yet we have not seen the wild orgy of inflated prices which had been predicted.

Ultimate effects of the passing of OPA on the soybean industry are not yet known. Many of the Department of Agriculture restrictions on usage have not been affected. Details on those are carried elsewhere in this issue, in the Washington Digest section. After a few days of operations at former price levels, while the situation was being surveyed, a few of the processors decided to raise soybean prices to see if supplies might be drawn out of the country to keep their plants running for at least a while longer. There have been, to our knowledge, no runaway prices as yet.

Whatever the developments within the next few days or weeks, it now appears that the 1946 soybean crop will be traded on a free and open basis, without governmental control or purchase, as has been the case for the past several years. The support price of $2.04 per bushel still holds, but there probably will be no ceiling.

The processing capacity of the nation is the greatest in history. Plans for new plants are being announced almost daily. There will be more competition for bean supplies than ever before. That fact, coupled with an acreage decrease of perhaps 15 percent from 1945 figures, may mean intense bidding for soybean supplies this fall.

The extent of that bidding, of course, will be determined by the production of the corn and small grain crops, and the consequent prices on those commodities, along with livestock prices. On first thought it would appear that prices on 1946 crop soybeans will be well above the support prices.

For the good of the industry, we hope that prices on soybeans, soybean oil and oil meal will be kept at moderate levels. We are still new in the national picture, and to assure our place through the next decade will call for wisdom, forethought, planning and level-headed refusal to be stampeded. A stable price and a stable market are to be preferred above extreme fluctuations.

Why Should We Discriminate? When we survey the galaxy of taxes, restrictions and prohibitions that apply against soy products in foods whether margarines, butters or toppings, baked products, ice cream or meats, one wonders if the original purpose of the pure food law has not been forgotten.

Original intent of those who supported the passage of the pure food law was to guard against misbranding and adulteration. But gradually state and federal laws bearing on food products have become the tools of powerful economic interests busily grinding their own axes until today there are many rulings on the books that have no bearing on whether a food is pure or wholesome or properly labeled.

For instance, in some states one group has succeeded in pre-empting the use of the word "milk," giving it a far narrower meaning than its dictionary usage. From month to month we have reported the legal trials of many such soy products, and examples could be multiplied.

New products, whether containing soy or other ingredients, must bear the brunt of interstate barriers, conflicting federal regulations and bureaucratic confusion since they have no powerful intrenched interests to battle for them before the various bureaus and in the state legislatures and in Congress.

The American Soybean Association makes no endorsement, express or implied, of any product. But it does demand that all food products, if they are wholesome and properly labeled, be allowed to rise or fall on their own merits in the marketplace. It is not for a Washington bureaucrat to decide whether we are to eat margarine or butter or soy butter. Logically that decision should be made by those who buy. All products of American agriculture should be allowed to find their own levels of consumption, based on relative merits.

Today they are not allowed to do so.

Important Convention Two years have elapsed since an American Soybean Association annual convention was held. The soybean industry has seen much in the way of progress since the last meeting. But it is now faced with the readjustments which must follow war-time stimulation—adjustments which will determine the course which the industry is to follow for years to come.

That is why the 1946 annual convention, to be held in St. Louis in late August, assumes major importance. A tentative program is included in this issue, along with a reservation blank for hotel accommodations.

Advance reservations on hotel accommodations previous to publication date were far in excess of expectations. Suppliers to the industry have been contacted, and reservations on available space in the exhibit room are being made daily. Included will be displays by a number of manufacturers of soybean products.

It looks like the biggest and best convention in years. If you have not made your reservations you will want to do so immediately. Use the blank on page 11. Be sure of convenient accommodations by making your reservation early.

—Courtesy Progressive Farmer.

Showing the difference in growth and maturity of two varieties of soybeans under Texas conditions. Ogden, in the foreground, full of beans and about ready for harvest. In the background, the larger, later Mamloxi is still growing.

LARGE SCALE PRODUCTION OF

Soybeans in Texas

One of the few Texas farms that has undertaken soybean seed production on a large scale is the 5,000-acre place of the Moser brothers, Otto and Norman, in Bowie County.

Editor Eugene Butler of *Progressive Farmer* recently visited the Moser farm and reported on the brothers' farming operations in an interesting article in that publication.

The Mosers have been successfully growing large acreages of soys for seed for a number of years.

There were 200 acres of soybeans on the place in 1945. "We have had as many as 400 acres but cut down this year in order to put extra land in cotton," Otto Moser told Butler. "Soybeans are used as a cash grain crop and also as a soil builder. For soil improvement we like a summer legume such as soybeans better than vetch or Austrian peas. We have not been able to turn under winter legumes in time to plant cotton as early as we think it should be planted."

The Mosers use two varieties of soybeans —Mamloxi, a late bean harvested about Nov. 1, and Ogden, an early variety ready for the combine about a month earlier. The Ogden produces a heavy crop but some of the beans are so close to the ground they are hard to gather.

Four cultivations are usually given soybeans in Texas. "They make about 20 bushels per acre, and we regard them as one of our most profitable crops," says Moser.

Soybeans are usually planted on land that was in Bermuda grass the preceding year. After combining, cattle are turned into the soybean fields to salvage the waste. A soybean crop leaves the land in good condition to follow with cotton or vegetables the following spring.

—s b d—

The Moser brothers grow soybeans like these in Texas. Here Otto Moser is holding a stalk of Ogdens heavily loaded with seed.

—Progressive Farmer

SUBSTITUTE SOYBEAN OIL IN CALF FEED

When an attempt was made to substitute soybean oil and other oils for butterfat in milk for young calves, the calves lost the hair on the inside of their thighs unless the oil was emulsified, reports *Farm Science Reporter.*

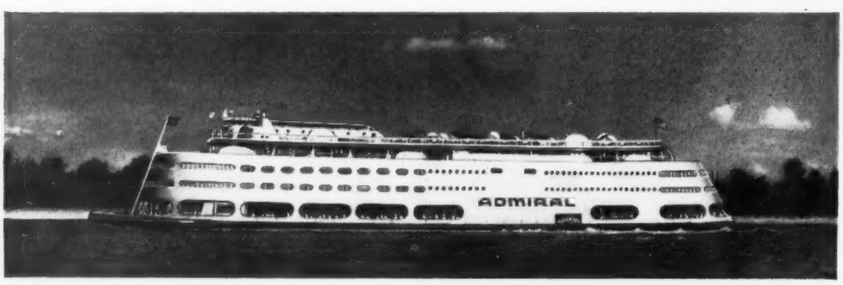
This was found in work at the Iowa Station. When the oil from these other sources was emulsified, there was no trouble with the hair falling out.

AT ASA'S 26th ANNUAL CONVENTION AUG. 29-31

"Meet Me in St. Louis"

St. Louis, one of the most modern commercial cities in America, still has a background of more than a century of historical events. No visitor in St. Louis is ever at a loss what to do or what to see. Members of the American Soybean Association who visit St. Louis August 29-31 will enjoy seeing the Art Museum, Cahokia Mounds, Chain of Rocks Park, the Confederate Memorial, the Dent House, Eads Bridge, Forest Park, Grant's Log Cabin, Jefferson Memorial, the Lindbergh Trophies, the Old Court House, "Ol' Man River," Shaw's Garden, St. Louis Municipal Airport, Zoological Gardens, and many other outstanding attractions.

The St. Louis Zoo, by the way, is one of the world's famous zoos, occupying 77 acres in Forest Park. Its more than 1,964 living creatures, including mammals, birds, fish, reptiles and amphibians, have been collected from all parts of the globe. Here are to be seen the famous "cageless" bear pits, erected at a cost of more than a quarter million dollars; the new monkey house, filled with simian life of every description; the largest steel-enclosed bird cage in the world, with its fascinating variety of bird life; the swan lakes; the new reptile house; and Peacock Valley, with its chain of 13 lakes teeming with aquatic life.

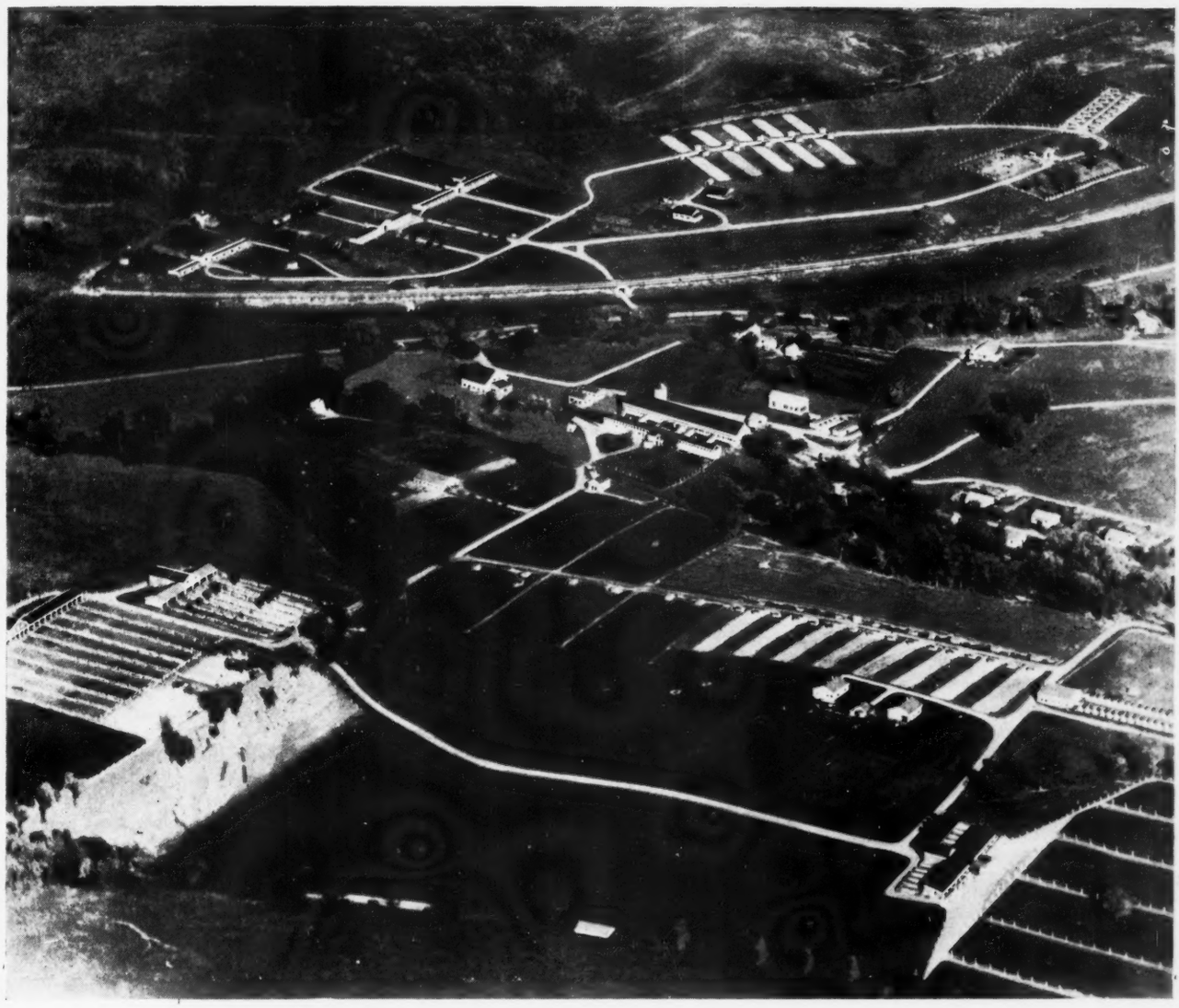


Visitors at the St. Louis Zoo find the cageless bear pits a big attraction. Upper left, the steamer Admiral leaves the docks twice daily for popular daytime and moonlight excursions on the Mississippi. Lower left, entrance to the famous St. Louis Municipal Opera in Forest Park.

In Forest Park you will also want to see the Jefferson Memorial, an imposing marble structure which stands on the site of the main entrance of the World's Fair. Among the exhibits in the Memorial and of supreme interest today, is the complete showing of the famous Lindbergh collection, including gifts, medals, trophies and souveniors from a score of foreign countries and thousands of sources.

By all means plan to see one of the world's largest gardens. The Missouri Botanical Garden, popularly known as Shaw's Garden, ranks second only to the famous Kew Gardens of England.

It contains the largest collection of plant life in the western hemisphere, and is fam-



712-acre Ralston Purina Co. research farm at Gray Summit, Mo.

ous the world over for its wealth of botanical species and its beautiful floral displays. Large conservatories are maintained, containing a varied collection of tropical plants and providing for an almost continuous display of chrysanthemums, orchids, lilies and other blooming plants.

Out of doors are to be found representative gardens of roses, irises, water lilies, and collections of every other kind of plant which can be grown in the region of St. Louis. The orchid and chrysanthemum shows have established national reputation for the gorgeousness and rarity of their blooms.

Music lovers among convention attendants will want to attend a performance of the St. Louis Municipal Opera now performing in its 28th season in the open air theatre at Forest Park.

There are nightly showings of the most popular musical masterpieces of comedy, dance and romance with leading stars of stage, screen and radio, a singing and dancing chorus of 90 and a superb orchestra.

"The Great Waltz," with music by Johann Strauss and lyrics by Desmond Carter will be on at the time of the convention. Tickets may be purchased in advance from the Municipal Opera's box office in the Arcade Building, Eighth and Olive streets, St. Louis.

The success of the annual meeting of the American Soybean Association is largely dependent on the provisions afforded by the city of its choice; the facilities for meeting places, accessibility, hotels, and most important, supervision by hosts who are convention-minded. The spirit of St. Louis is a spirit of friendliness.

Convention visitors who make the trip Aug. 31 to the Ralston Purina Co., research farm near Gray Summit, Mo., will find a 712-acre place conducted like any modern American farm.

The farm and laboratories are staffed by almost 200 scientifically trained and practical research workers. All tests are directed toward developing better feeds and feeding methods to enable livestock and poultry to produce every ounce that good breeding has put into them. Over 3,000 head of livestock and 45,000 poultry are handled annually.

The Ralston Purina Co. was founded in 1893 by Wm. H. Danforth. Chief product at first was horse and mule feed. The research farm was set up 20 years ago to test under actual farm conditions all ingredients and formulas for a business that was then rapidly expanding to serve all parts of the nation.

Work is going on with chickens, turkeys, ducks, dairy cattle, sheep, hogs, dogs, rabbits, foxes, mink and chinchillas. Experimental rations are fed in comparison with standard formulas, and actual production records tell when a new ration has proven itself.

The Purina research department has pioneered in the use of soybean oil meal and other ingredients used in commercial feeds. Research work with soybean oil meal dates back to when this meal had to be imported from Manchuria. The few soybeans grown in the United States at that time were for seed.

Realizing the value of soybean oil meal,

the Ralston Purina Co. established one of first soybean processing plants in the United States at Lafayette, Ind. A little later a processing unit was installed at the St. Louis plant. Following these two, a processing unit was built at Circleville, Ohio, which was the first soybean processing plant in Ohio. In 1942, a processing plant was built at Iowa Falls, Iowa and in 1944, a unit installed at Kansas City.

All through the years, the Ralston Purina Co. has been very active in educational work of growing soybeans. The firm has continually contacted farmers, county agents, vo-ag teachers, feed merchants, and country elevators in an effort to stimulate soybean acreage.

Almost in every place where Purina has established a soybean crushing plant, the crushing capacity far exceeded the supply of soybeans in the immediate territory. However, as soon as the plants were built, acreage increased rapidly in that vicinity, for soybean growers had a ready market for their crop.

It was largely through Purina's efforts that the Ralsoy variety of soybean was developed and introduced to the farmers of northern Arkansas and southeastern Missouri. High in oil yield this yellow bean provided Arkansas and Missouri farmers a profitable new crop.

Today the Ralston Purina Co. is one of the largest users of soybean oil meal in the United States. Even though the company has five soybean processing plants, approximately one-half the meal needed must be purchased from other processors. This makes the Ralston Purina Co. one of the largest customers of the soybean grower.

Whatever you are interested in — this trip to the Purina research farm will interest you. This is one trip you can't afford to miss.

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STALEY COMPANY TO BUILD PILOT PLANT

A. E. Staley Manufacturing Co., Decatur, Ill., has announced beginning of construction of a pilot plant in which methods of manufacturing new products from corn and soybeans will be tested as a sequel to research laboratory operations.

The three-story concrete and steel building will cost an estimated $225,000. E. L. Simmons Co., Decatur, is contractor.

Construction of this building is the third step in a post-war expansion program at Staleys' huge plant here. A 2 million dollar soybean oil extraction plant was placed in operation less than a year ago.

The company recently completed a $250,000 research laboratory expansion and is about to complete a large, ultra-modern kitchen for testing of home recipes for baking, canning, cooking and freezing foods.

THE AMERICAN SOYBEAN ASSOCIATION'S

26th Annual Convention

HOTEL JEFFERSON

ST. LOUIS, MO., AUGUST 29-31

Theme: Industrial Utilization of Soybeans

PRELIMINARY PROGRAM — SUBJECT TO CHANGE

WEDNESDAY, AUGUST 28

3:00 p. m. Board of Directors Meeting. Resolutions Committee. Nominations Committee

6:00 p. m. Advance Registration, Mezzanine Floor

8:00 p. m. Informal Smoker, Room No. 1, Hotel Jefferson. All members of Industry Invited

THURSDAY, AUGUST 29

8:00 a. m. Registration. Mezzanine Floor. Hotel Jefferson. Exhibits on Display in Ivory Room

9:00 a. m. Gold Room, Hotel Jefferson. Howard L. Roach, President American Soybean Association, Presiding

Address of Welcome, Missouri Director of Agriculture

"Soybean Production Practice Summaries," J. W. Calland, Director of Agronomic Research, Central Soya Co., Inc., Decatur, Ind.

"Large-Scale Soybean Production," Henry I. Cohn, Valley Farms Co., Carrollton, Ill.

"Soybeans and the Fertility Level," Dr. A. G. Norman, Department of Agronomy, Iowa State College, Ames, Iowa

"Today's Knowledge of Soybean Diseases and Pests," Dr. William B. Allington, Pathologist, U. S. Regional Soybean Laboratory, Urbana, Ill.

"The Southern Regional Soybean Variety Program," Paul R. Henson, Agronomist, Delta Branch Experiment Station, Stoneville, Miss.

12:00 m. Adjourn for Lunch. Exhibits on Display

1:30 p. m. Reconvene — Walter McLaughlin, Vice President American Soybean Association, Presiding

"German Oilseed Processing," Dr. W. H. Goss, Industrial Analyst, Northern Regional Research Laboratory, Peoria, Ill.

"Soy Flour: War Usage and Peace Prospects," A. E. Leger, Executive Secretary, Soy Flour Association, Chicago, Ill.

"Processor Plans to Improve Soybean Production," C. Kenneth Shuman, Director of Nutrition, Feed Mill Division, The Glidden Co., Indianapolis, Ind.

"Feeding the World With Soya," Dr. H. W. Miller, President, International Nutrition Laboratory, Mt. Vernon, Ohio.

FRIDAY, AUGUST 30

9:00 a. m. Annual Business Meeting, American Soybean Association

10:30 a. m. J. B. Edmondson, Clayton, Ind., Presiding

"The Soybean in Our Industrial Economy." Speaker to Be Announced

"Soy Protein in Industry." Speaker to Be Announced

"World Trends in Major Oil Crops and Their Effect on Soybean Acreage in the United States," Peter L. Hansen, Bureau of Agricultural Economics, U. S. Department of Agriculture, Washington, D. C.

12:00 m. Adjourn

1:30 p. m. Reconvene

"What Can We Do to Maintain and Expand the Soybean Industry?" Speaker to Be Announced

"Soybeans in the UNRRA Program," Donald S. Payne, Washington, D. C.

"Soybeans in the Years Ahead," E. G. Strand, Agricultural Economist, Bureau of Agricultural Economics, U. S. Department of Agriculture, Washington, D. C.

"Soy Plastics and Fibres," Speaker to Be Announced

Other Speakers to Be Announced

7:00 p. m. Banquet, Gold Room. Program to Be announced

SATURDAY, AUGUST 31

9:00 a. m.—4 p. m. Trip to Ralston Purina Experimental Farm, Gray's Summit, Mo. Transportation by Auto and Bus. Lunch Served by Hosts

For your convenience in making hotel reservations for the coming meeting of the American Soybean Association August 29 to 31, in St. Louis, hotels and their rates are listed below. Use the form at the bottom of this page, indicating your first, second and third choice. Because of the limited number of single rooms available, you will stand a much better chance of securing accommodations if your request calls for rooms to be occupied by two or more persons. All reservations must be cleared through the housing bureau.

All requests for reservations must give definite date and hour of arrival as well as definite date and approximate hour of departure. Also names and addresses of all persons who will occupy reservations requested MUST be included.

Hotel	For 1 person	For 2 persons Double Bed	Twin Beds	2-room suites Parlor & Bedroom
American	$2.00—$3.00	$3.50—$4.00	$5.00	$ $
Claridge	3.00— 4.00	4.00— 6.50	5.00— 6.50	10.00— & up
Coronado	3.00—& up	5.00—& up	6.00— & up	8.00— 13.00
DeSoto	2.65— 7.00	4.00— 7.00	5.30— 10.00	10.00
Jefferson	3.50— 5.00	4.50— 6.00	6.00— 8.00	12.00— 20.00
Lennox	3.00— 5.00	5.50— 6.00	5.50— 6.50	10.00— 11.50
Lindell Plaza	2.50— 4.00	3.50— 5.00	3.00— 5.00	
Majestic	2.00— 2.25	2.75— 3.25	4.00	
Mark Twain	2.75— 3.50	4.00— 5.00	4.50— 5.50	
Mayfair	3.00— 6.50	4.00— 8.00	5.50— 8.00	10.50— & up
Melbourne	3.20— 4.20	5.30— 6.80	5.30— 7.30	
Roosevelt	3.00	3.50	4.50	
Statler	3.50— 5.00	5.00— 7.00	6.50— 9.00	

ALL RESERVATIONS MUST BE RECEIVED NOT LATER THAN AUGUST 14.

USE THIS FORM

Housing Bureau, American Soybean Association
910 Syndicate Trust Building, St. Louis 1, Mo.

Please reserve the following accommodations for the American Soybean Association Convention in St. Louis, Mo., on August 29-31, 1946.

Single Room ..... Doubled bedded room .... Twin bedded room .....

2 Room Suite ..... Other type of room .....

Rate: From $..... to $..... First choice hotel .....

Second choice hotel .....

Third choice hotel .....

Arriving at hotel (date)..... hour.....A.M.....P.M. Leave (date).....

hour.....A.M.....P.M.

The Name of Each Hotel Guest Must Be Listed. Therefore, please include the names of BOTH persons for EACH double room or twin bedded room requested.

Names and addresses of all persons for whom you are requesting reservation and who will occupy the rooms asked for:

.....

.....

.....

.....

(Individual requesting reservations)

Name .....

Address .....

City and State .....

If the hotels of your choice are unable to accept your reservation the Housing Bureau will make as good a reservation as possible elsewhere providing all hotel rooms available have not already been taken.

Big Soybean Production in Mid-South

By MAUREEN KING NORRIS

Blytheville, Ark.—It's growing time in this section of the Mid-South again with farmers busy at their task of cultivating another crop for a new peacetime world.

But instead of the fields being practically covered with young cotton, there are many acres of soybeans, too, with this important commodity now the No. 2 crop in the largest cotton-producing county in the world.

For Mississippi County, where cotton reigns as king, is fast making way for soybeans to also occupy the throne of agriculture.

Reason for this shift from an all-cotton county is not by chance. It is the result of an experimental program which has paid off with extension agents sponsoring the movement to balance the one-crop farming system here.

Soybeans have proved profitable because the crop requires less labor than cotton, to make a good cash crop with less worry; because it can be planted after a wet spring makes cotton replanting impossible and because the soybean is a soil improver, in rotation with cotton and corn.

The soybean has proved to farmers of this section that it can withstand more unfavorable weather and is subject to less disease and insect injury than any crop grown here, as well as growing equally well on all types of soil in this county.

A "NATURAL" IN ROTATION

This crop is a "natural" in the crop rotation here for most farmers since it adds considerable organic matter and some nitrogen to the soil. This organic matter is especially valuable on heavy soils.

There are 486,000 acres of farm crops being planted in Mississippi County this year. Cotton ranks first with 200,000 acres; soybeans, second with approximately 160,000 acres, while prior to 1930 there were no soybeans planted here and in 1937 but 15,500 acres of beans were planted for oil.

Mississippi County last year harvested more soybeans than the entire state of Arkansas produced in 1937, with 70,348 acres planted alone and more than 75,000 acres

(*Continued on page 14*)

Soybean Varieties in the
YAZOO-MISSISSIPPI DELTA
1944-1945[1]

By ROBERT B. CARR[2]

THE DELTA Experiment Station, a branch of the Mississippi Agricultural Experiment Station, located at Stoneville, Miss., began its soybean research program in 1920, and by 1942 this program became one of the station's major projects. Since that period, there has been a gradually increasing interest in soybeans in the Delta. The initiation of the southern regional program in 1943, with headquarters for the Southeran states at Delta Station, resulted in an expanded breeding and testing program under Mississippi conditions. In 1944 and 1945, introductions, progenies, selections and varieties under test numbered approximately 3,000.

These investigations, concerned primarily with the production of better varieties of soybeans for industrial utilization and adapted to Delta conditions, may be divided rather broadly into: (1) The development of superior material by hybridization and through selections within introductions and established varieties; and (2) subsequent evaluation through field tests of these selections and varieties as to their date of maturity, yield, seed quality, and oil and protein content.

GROUPED ACCORDING TO MATURITY

The 2,000 to 2,500 hybrid lines of approximately 75 crosses now under observation, represent the best blood lines of varieties adapted to northern, southeastern and southern conditions. These crosses were made by Dr. Leonard F. Williams of the U. S. Regional Soybean Laboratory, Urbana, Ill., and Dr. E. E. Hartwig and Mr. J. A. Rigney of the U. S. Regional Laboratory and the North Carolina Agricultural Experiment Station, Raleigh, N. C., respectively. The maturity range of this material extends from early August to late November. In 1944 approximately 30 of the most promising commercial varieties were in the uniform variety yield tests and approximately 200 other varieties and selections were in preliminary yield tests. In 1945 the number of varieties in the uniform tests was increased to approximately 40, and the number in the preliminary test, including hybrid lines, to approximately 600. During 1944 and 1945 a number of these tests were conducted at several locations to determine the adaptation of these varieties and strains to conditions in the Yazoo-Mississippi Delta.

Since the normal maturity of existing varieties, adapted to southern conditions, ranges from early September to early November, the varieties tested were grouped according to maturity in order to obtain more accurate information on the performance of each variety. They were grouped as follows: (1) early strains maturing prior to September 15; (2) medium strains, October 1 to October 15; (3) medium-late strains, October 15 to November 1; and (4) late strains, those maturing after November 1. At present there are no promising varieties which normally mature between September 15 and October 1.

Plantings were made on four major soil types in the Delta, extending from the northern to the southern part of the area. The soils for the several locations are: Dubbs silt loam at Tunica; Robinsonville very fine sandy loam at Stoneville; Yazoo silt loam at Anchorage; and Sharkey clay soil (commonly known as "buckshot") at Onward.

Plant height and lodging notes were taken on the varieties as they matured. Yields were determined from the weight of seed harvested from a 16-foot section from each of the four one-row plots of each variety. All yields were analyzed statistically to determine whether the differences were significant. At some locations the two seasons varied to such an extent, primarily in the amount and distribution of rainfall, that the yield and rank of some varieties was quite different.

The quality and size of seed of each variety was recorded, and a composite sample taken for chemical analysis. All analyses were made by the U. S. Regional Soybean Laboratory at Urbana, Ill. Two-year average yields for 1944-45, other agronomic and morphologic data, percentage of protein, oil, and the iodine numbers of the oil are summarized by maturity groups in tables 1, 2, 3, and 4.

1. Contribution from the Division of Forage Crops and Diseases, Bureau of Plant Industry, Soils, and Agricultural Engineering and Delta Branch Experiment Station, Stoneville, Mississippi.

2. Robert B. Carr, Assistant Agronomist.

Map shows Mississippi Delta section and the various locations where the soybean tests are conducted.

EARLY VARIETIES

Many planters have expressed an interest in a soybean that can be combined before the peak of the cotton picking season. This has assumed increasing importance as the labor supply dwindled during the war years. Consequently, one of the aims of the soybean breeding program at the Delta Experiment Station is to develop an early maturing variety of soybeans.

The early maturing strains being tested at the present time by the Delta Station are better adapted to northern than to southern conditions, being among the best for Kentucky, Missouri, southern Illinois and southern Indiana, where they mature during the cool fall months, producing excellent yields of high quality seed. Under Delta conditions, however, the same strains mature from late August to early September.

The highest yielding early varieties in the Delta in 1944-45 were: C101, a new strain developed by the Indiana Agricultural Experiment Station; and S100 developed by the Missouri Agricultural Experiment Station. The 2-year av-

erage yields of both varieties were approximately 6 bushels greater than that of Macoupin, formerly accepted as one of the best varieties for the South.

Two other strains, S55-10 and S55-35, also developed by the Missouri Agricultural Experiment Station, have made very good yields of fair quality seed, with the highest percentage of protein in the early strain tests.

Because of the generally poor quality of the seed of many of these early varieties when grown in the South, it may be necessary to secure planting seed each year from northern sources.

MEDIUM VARIETIES

Ogden, a variety developed by the Tennessee Experiment Station, was the highest yielding variety at all locations in 1945, with a 2-year average yield of 34.5 bushels per acre, which was 9 bushels better than the yield of any other variety. The percentage of oil in Ogden is relatively high, protein fair, and the seed quality fair to good. It is a bushy-type soybean that grows to a height of 30 to 36 inches and matures in early October. On fertile soil, planted in 40-inch rows, it will spread sufficiently to cover the ground. In this way, it serves effectively in controlling weeds and grasses if clean culture is practiced in the early stages of growth. One undesirable feature is that it shatters heavily on thin soil or under extremely high temperatures and low humidity.

Armredo, a selection out of Mamredo, made at the Arizona Agricultural Experiment Station, and Ralsoy were next to Ogden in yield in this maturity group. The percentage of oil in Armredo and Ralsoy were low, but the quality of seed was good for each variety.

MEDIUM-LATE VARIETIES

The two varieties outstanding in this group are Roanoke, a variety developed by the North Carolina Experiment Station and released in 1945, and Volstate, a variety developed by the Tennessee Experiment Station. In 1945, the average yield of each variety for five locations was approximately 30 bushels per acre. At two locations the average for 1944 and 1945 was 31 bushels per acre. These varieties are similar in many respects. Both have a very high percentage of oil, a fair percentage of protein, and mature in late October. And they are also much alike in plant type, with seed size and quality practically the same. Wood's Yellow ranks third in yield in this maturity group.

LATE VARIETIES

Grain, hay, and vegetable types of soybeans were included in the late group, consequently, there was considerable variation between varietal yields. The differences in yields between the grain varieties, namely, Delsta, Mamloxi, and Mamotan, and Nanda—long considered a vegetable type—were not significant. The percentage of oil in Nanda is equal to that of the grain-type varieties in this group. The Pelican, Acadian and L.Z., developed by the Louisiana Experiment Station, are intermediate grain-hay types and have made fair yields. The yields of grain from the hay varieties, Avoyelles and Gatan, Red Tanner, and the two vegetable varieties, Cherokee and Seminole, were definitely low.

SUMMARY OF AGRONOMIC AND CHEMICAL DATA FOR THE SOYBEAN VARIETIES AND STRAINS—1944-45 (1)

Table 1—Early Maturing Strains

	C101	S100	S55-35	S55-10	Gibson	Chief	Macoupin	Boone	(5) Patoka
Yield—Bushels per Acre									
Tunica	28.8	30.3	28.7	28.1	27.1	25.8	25.2	23.8	
Stoneville	38.0	36.3	31.7	31.5	31.0	30.5	29.5	28.0	
Mean	33.4	33.3	30.2	29.8	29.0	28.1	27.4	25.9	
Date Mature	9-5	9-14	9-3	9-3	9-6	9-5	9-6	9-7	9-5
Lodging (2)	2.6	2.6	2.4	2.9	2.9	2.9	2.5	3.3	1.6
Height (Inches)	37	46	36	36	37	44	45	42	30
Seed Quality (3)	3.7	3.3	3.3	3.2	3.7	3.8	3.2	4.4	3.8
Beans per lb.	3290	3660	3130	3500	3420	3730	3580	3520	3180
Percent Protein (4)	40.3	42.4	42.9	42.5	40.5	40.7	39.6	41.3	42.1
Percent Oil (4)	21.2	19.3	20.5	21.1	21.1	21.5	21.9	21.1	21.2
Iodine No. of Oil	128.9	131.0	130.7	132.8	129.7	128.2	129.4	126.1	132.1

TABLE 2—MEDIUM MATURING STRAINS

	Ogden	Armredo	Ralsoy	2-40A	6-40M	Arksoy 2913	Mamredo	Magnolia	P. I. 97066	(6) Rose Non-pop	(7) Delsoy
Yield—Bu. per Acre											
Stoneville	38.6	25.6	25.7	26.7	22.5	20.8	23.0	26.2	24.5	25.6	24.0
Tunica	31.2	24.6	25.4	23.0	23.6	27.1	23.2	17.9	17.0	....	....
Anchorage	33.6	26.2	22.9	18.6	22.2	19.1	20.2	19.0	18.0	24.5	18.8
Mean	34.5	25.5	24.7	22.8	22.8	22.3	22.1	21.0	19.8	....	....
Date Mature	10-2	10-5	10-3	10-5	10-5	10-4	10-7	10-4	10-11	10-9	10-6
Lodging (2)	1.9	3.0	2.1	2.2	2.2	2.4	2.9	3.8	3.9	2.1	2.6
Height (Inches)	30	32	30	29	23	28	34	44	48	33	32
Seed Quality (3)	2.6	1.9	1.9	2.3	2.0	1.8	2.8	2.7	2.4	2.3	2.0
Beans per Lb.	3310	4775	3780	3720	2930	4010	3690	3630	4360	3490	3360
Percent Protein (4)	40.9	40.1	42.7	42.1	42.4	42.7	40.6	42.8	42.6	....	....
Percent Oil (4)	21.0	20.2	20.4	20.7	19.9	20.4	20.1	20.8	19.4	....	....
Iodine No. of Oil	134.4	134.0	133.4	132.0	128.4	133.8	129.4	128.4	130.2	....	....

TABLE 3—MEDIUM-LATE MATURING STRAINS

	Roanoke	Volstate	Wood's Yellow	26-39M	89775A	Missoy	CNS	Monetta	Palmetto
Yield—Bu per Acre									
Stoneville	34.8	32.8	28.1	26.9	23.9	22.0	20.5	20.9	14.1
Anchorage	28.1	29.3	19.5	20.7	14.1	14.8	13.2	12.1	10.3
Mean	31.5	31.1	23.8	23.8	19.0	18.4	16.9	16.5	12.2
Date Mature	10-23	10-25	10-23	10-18	10-16	10-20	10-22	10-14	10-22
Lodging (2)	3.3	3.4	2.3	2.8	3.7	4.3	3.4	3.8	4.3
Height (Inches)	41	37	38	26	46	55	34	40	59
Seed Quality (3)	1.9	1.9	2.4	1.9	3.1	2.8	2.2	2.3	3.2
Seed Per Lb.	3260	3150	2480	3410	3750	4010	3600	4320	3170
Percent Protein (4)	40.4	39.3	43.3	43.1	43.2	43.9	46.2	44.3	45.9
Percent Oil (4)	21.7	21.1	18.8	18.5	18.9	19.2	17.8	15.8	17.6
Iodine No. of Oil	132.3	131.2	130.2	134.1	133.2	128.6	129.6	132.9	127.7

TABLE 4—LATE MATURING STRAINS

	Mamotan	Mamloxi	Delsta	Pelican	Acadian	Nanda	L.Z.	Avoyelles	Gatan	Seminole	Cherokee	Red Tanner (8)
Yield—Bu. per Acre												
Stoneville	29.0	25.7	25.7	25.6	25.5	23.7	23.6	17.2	15.8	12.7	12.4	...
Date Mature	10-30	11-1	10-28	11-1	10-29	10-28	10-30	10-30	10-30	11-2	10-30	10-20
Lodging (2)	3.0	3.1	2.9	4.3	4.1	3.4	4.1	4.5	4.5	3.9	3.2	5.0
Height (Inches)	43	45	47	60	60	39	60	56	57	46	49	35
Seed Quality (3)	2.1	2.4	2.2	2.2	2.0	2.3	2.4	2.5	2.0	3.4	2.7	3.4
Beans per Lb.	2500	2800	2100	3800	3200	2400	3700	3600	4400	1600	2200	3900
Pct. Protein (4)	41.8	42.7	42.7	41.6	43.3	42.1	44.0	42.5	45.0	45.7	46.6	...
Percent Oil (4)	19.6	18.2	19.2	19.8	19.8	20.4	19.3	18.3	16.9	19.3	18.0	...
Iod. No. of Oil(7)	138.5	137.3	135.1	137.4	136.3	133.3	136.9	137.8	138.8	135.1	133.5	140.3

1—All chemical analyses made by the U.S. Regional Soybean Laboratory, Urbana, Ill.

2—Lodging notes recorded on a scale of 1 to 5 as: (1) Nearly all plants erect; (2) plants leaning slightly; (3) plants leaning moderately or 25 to 50 percent down; (4) plants leaning considerably or 50 to 80 percent down; (5) 80 percent or more of plants down.

3—Seed quality recorded on a scale of 1 to 5 as: (1) Very good; (2) good; (3) fair; (4) poor; (5) very poor; based on development of seed wrinkling, damage, and color for the variety.

4—Percentage based on moisture-free material.

5—The yield data for Patoka was incomplete in 1944.

6—The yield data for Rose Non-pop and Delsoy was incomplete in 1944.

7—1945 data only.

8—The yield data for Red Tanner was incomplete in 1944.

NORRIS

(Continued from page 11)

interplanted with corn.

The Mississippi County Farm Bureau, mindful of the importance of soybeans has an agricultural subcommittee on soybeans, which this year has mapped an aggressive program which includes a gradual shift to better varieties.

This plan is to do away with the Arksoy beans completely and to plant Ralsoys and Ogdens on 85 percent of the 1946 acreage. The other 15 percent would go into early maturing varieties as Macoupins and possibly Lincolns.

The committee is asking for cleaner combining in the field to prevent "dockage" at the market and recommending that all receiving stations pay on the grade basis (by oil and moisture content) as soon as practical grading equipment is available. The extension service was asked to arrange combine adjustment schools in 1946. Other recommendations were made on variety and fertilizer tests throughout the county.

The Lincoln variety is being tested here this year with much interest shown, because this variety matures in a much shorter length of time than Ralsoy.

Much concern has been felt here because the support price was not increased by the government recently when a rise was given in prices of corn and wheat.

The Mississippi County Farm Bureau was among the first groups in the nation which protested this failure and is asking its representatives in Congress to correct this "injustice," so as to further insure a continued increase in soybeans planting here.

Most soybeans are combined in fields and then taken directly to elevators, although a few store their crop in government-owned bins.

OPTOMISTIC THIS YEAR

With a yield of 1,500,000 bushels from the 1945 crop in Mississippi County, farmers are optimistic as to the harvest this year. Because of the frequent rains during the past month, many farmers have planted soybeans instead of replanting early cotton crops damaged by the late spring and rain, to further increase the acreage.

Estimated yield this year varies but many agricultural leaders predict that approximately 2 million bushels of 1946 soybeans will be harvested in this area.

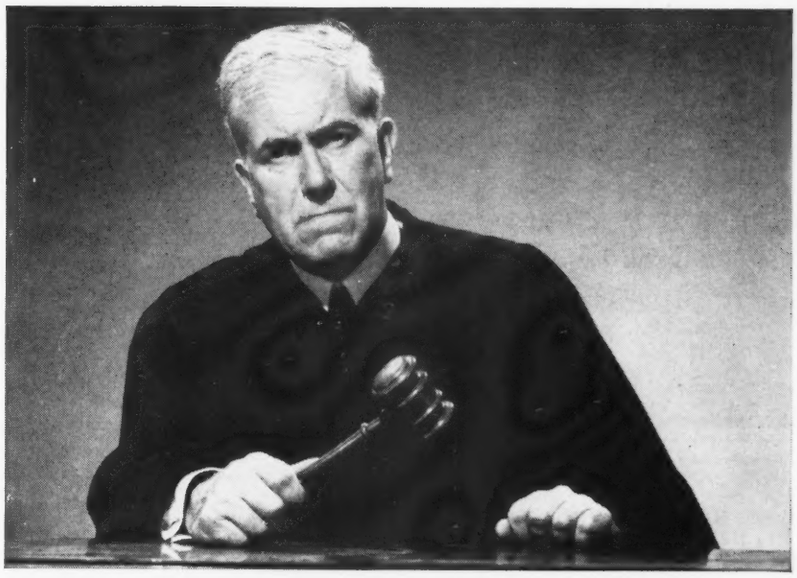
Average yield in Mississippi County is from 22 to 23 bushels per acre, over a period of years, with many farmers growing as much as 40 bushels per acre in 1945.

What has been done in Mississippi County, Ark., is true also in adjacent Pemiscot County, Mo., where, in the past 6 years, soybean acreage has increased from none to 50,000 acres in a county which has approximately 300,000 acres of farm crops.

This is true of entire southeast Missouri, with Arksoy and Ralsoy beans the most popular varieties planted there, although some farmers grow Boone variety.

The same method of harvesting is used in the adjacent southeast Missouri sections as in Mississippi County, Ark.

M. D. Amburgey, extension agent there, is a leader in the shifting from cotton to soybeans with the late spring seasons of the past several years influencing him to encourage increased growing of soybeans which can be planted in Pemiscot County from April until June. Cotton can not be planted that late.



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Shortage of Protein

Those who see the increased feeding of protein concentrates by farmers during the war as a temporary practice ignore the fact that a much greater increase, expressed in percentages, took place in the feeding of concentrates in the period immediately before the war.

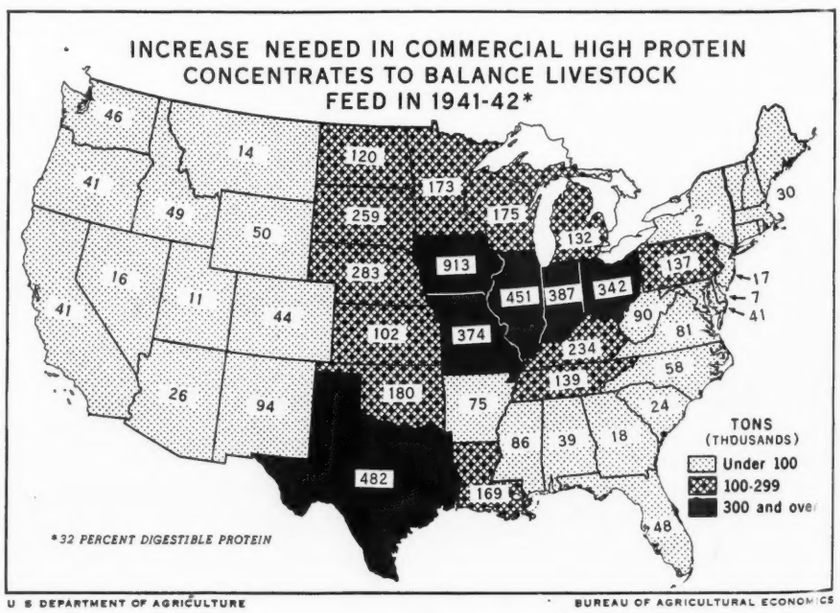
R. D. Jennings, agricultural economist of the Bureau of Agricultural Economics, places this increase at 25 percent per unit of livestock production in the years between 1933 and 1941.

Jennings sees the postwar problem as not one of finding a market for protein feeds, but of the quantity apt to be produced. He believes supplies of animal and vegetable concentrates will not be great enough to meet protein needs of our livestock population, and urges increasing legume hays and pastures to make up the deficit. He sets forth his views in the recent Bureau publication, *The Deficit in Protein for Livestock.*

It would have taken from 6 to 7 million tons of concentrates in addition to those fed to have met the animal protein needs of the livestock population during the war years, in Jennings' estimation.

Concerning the probable future demand for protein, Jennings says: "We are far short of supplying our livestock nutritional needs for protein and it is not likely that a major part of the deficiency could ever be met through feeding additional high-protein concentrates. A principal reason is that the . . . concentrates are all secondary products or byproducts from other production processes. They are not produced primarily for the protein content.

"The future supply of high-protein concentrates will depend largely on the situation affecting the following products or



industries: cotton, fats and oils, meat packing, fish canning, the corn wet-milling industry, and the distilling and brewing industries. The fats and oil situation is one of the most important elements in this picture and in view of probable contraction from wartime production levels, it seems likely that supplies of high-protein meal from these sources will decline somewhat.

> *"How much farmers will buy is therefore literally only a question of how much will be available, as it is probable that whatever is produced will be bought and fed. . .*

"The same factors that brought about the prewar increase in protein demand per unit of livestock production are continuing to operate. The mixed feed industry will probably continue production at a higher level than before the war. Continued improvement in feeding methods for livestock may be anticipated if economic conditions are favorable.

"It may safely be concluded that some further increase in demand for high-protein concentrates per unit of livestock production may be expected above the 1941-42 level. There might be an increase of 10 to 15 percent in the next decade. This would be only about half as much increase as occurred in the decade just before the war.

"If total livestock production is . . . about the same as in 1941-42 this would mean a total demand of about 9.9 million tons of high-protein feeds or about 6.9 million tons of oil meal and gluten feed and meal. This is about the same quality that was available during the war and more than is likely to be available during the next decade. The total supply is more likely to be in the neighborhood of 9 million tons of high-protein feed and 6 million tons of oil meal and gluten meal. With this difference between quantity available and quantity demanded, the prices of high-protein feeds would increase in relation to other feeds.

"There is little hope of offsetting the protein deficiency through more high-protein feeds. The best opportunity seems to lie in the direction of hay and pasture improvement to supply more and better roughage."

U.S. Soybean Acreage Is Down 13 Percent

The 1946 national soybean acreage grown alone for all purposes is 11,614,000 acres the U. S. Department of Agriculture crop reporting board estimates in its July report. This is a 13 percent cut from last year and the lowest since 1941. The 10-year average yield is 17.6 bushels per acre.

July 1 soybean stocks on farms were the smallest in 4 years of record—6,780,000 bushels representing only 3.5 percent of the 1945 crop. Farm stocks July 1, 1945 were 7,587,000 bushels.

Indicated 1946 acreage in the 15 major producing states: Ohio 1,034,000; Indiana 1,483,000; Illinois 3,428,000; Michigan 133,000; Minnesota 642,000; Iowa 1,610,000; Missouri 733,000; Kansas 230,000; Virgina 156,000; North Carolina 350,000; Kentucky 167,000; Tennessee 201,000; Alabama 222,000; Mississippi 200,000; Arkansas 386,000.

Soybean Digest crop correspondents indicate decreases in soybean acreage in all major soybean producing states. Their July 1 reports follow:

ARKANSAS

Jacob Hartz, Stuttgart, for east central: Planting date late. Acreage 80-85% of 1945. July 1 condition normal. Current moisture supply good over most of territory. Our acreage reduced materially because of dry weather during June. Month's first rain June 25.

CONNECTICUT

J. S. Owens, University of Connecticut, Storrs: Planting date 1-2 weeks late. July 1 condition late. Moisture supply excellent. All soybeans for hay, pasture or silage.

ILLINOIS

A. J. Surratt, agricultural statistician, Springfield: Present conditions of Illinois soybeans above average, tending to improve northward and westward in state. Stands somewhat uneven and top growth varies due to varied planting dates, also to water damage by recent rains across upper central Illinois and from increasingly dry weather in the southern quarter of Illinois. Planting (June 26) nearing completion with some exceptions on lowlands and in flood spots across upper central Illinois and along Mississippi River area into northwestern Illinois. Total acreage planted for all purposes 15-20% less than 1945. Recent excessive rains in central Illinois and delayed planting in lower central Illinois will somewhat curtail the marked increase in acreage plans for corn and should work to retard intended sharp decrease in soybean acreage. Soil moisture supply ranges from normal to somewhat less in north to above normal in central and tends to be increasingly below normal in southern section. Loss of much of first cutting of red clover hay by anthracnose (blight) in the area south and east of the Illinois River will reduce 1946 yield of clover hay on many farms and may make it necessary to increase the acreage of soybeans cut for hay compared with usual. Likely that fully 10% of total soybean acreage will be cut for hay this year.

Walter W. McLaughlin, McLaughlin Agricultural Service, Decatur, for territory: Beans planted in fine shape in good season. Beans drowned out by a few ponds. Some grass and weeds due to wet weather. Acreage 80% of 1945. July 1 condition above normal. Abundance of moisture. Too much in places.

Frank S. Garwood & Sons, Stonington, for south central: Planting date mostly normal with but few late planted fields. Heavy rains in May and June increased soybean acreage over what it would have been otherwise, but 20% under 1945. Current moisture ample. Soybeans as whole look better at this date than for years. Fields should be cleaner this year as higher percentage is rowed. Row width ranges from 21 inches to 42 inches.

Russell S. Davis, Clayton, for west central: Planting date 10 days late. Acreage roughly 10-15% less than 1945. Crops off to good start. Good stands and clean of weeds. Moisture supply just right, *believe it or not*. 1945 acreage larger because much oats and corn did not get planted. But 1946 crop, while smaller in acreage, was planted about two weeks earlier and in good seedbeds. Frequent but light showers since planting have given good stands. Cultiva-

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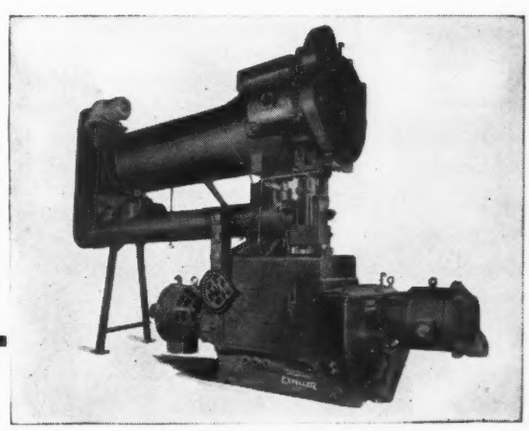

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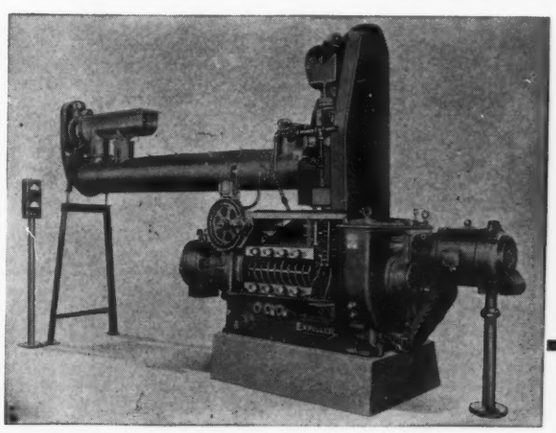

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INDIANA

Ersel Walley, Walley Agricultural Service, Fort Wayne, for northwest Ohio and northeast Indiana: Wide variation as to planting date. Some cornfields drowned out and planted to beans. 1946 acreage about 95% of 1945. July 1 condition 90% of normal. Current moisture supply ample to excessive. Crop does not look as thrifty as should.

K. E. Beeson, Indiana Corn Growers Association, West Lafayette: Planting date generally normal. Slightly later in few parts. My guess acreage 15% less than 1945. July 1 condition excellent in central. Current moisture supply okay.

Peter J. Lux, State AAA, Indianapolis: Planting date about 1 week later than normal. Small increase in acreage over last report because of recent heavy rainfall. 15% less than 1945. Crop late but condition average.

IOWA

O. N. LaFollette, Feed Institute of Iowa, Des Moines: Planting date average week to 10 days earlier than normal. Some beans replacing corn where early varieties available. Acreage 25% below 1945. July 1 condition above normal. Current moisture supply sufficient to date.

Lauren K. Soth, Iowa State College, Ames: Planting date normal. Acreage 15-20% less than 1945. July 1 condition normal. Moisture supply adequate in heavy soybean area.

H. E. Hazen, State AAA, Des Moines: Planting date 7 days earlier than normal on average. Much flooded out area now going to late beans rather than corn. Acreage 84% of 1945. July condition 110% of normal. Current moisture supply extra good.

Fred Hawthorn, Castana, for western: Planting date about normal. Some planted before freezes of May 9-10. Some flooded land went to beans instead of corn. Acreage 75% of 1945. July 1 condition normal. Current moisture supply good. Beans cleaner than last year and promise to be at least normal crop.

John Sand, Marcus, for northwest: Practically 100% of crop planted by June 1. Acreage about same as last year. Considerable switch in varieties from practically 100% Richlands to part Lincoln and Earlyana.

Martin G. Weiss, farm crops department, Iowa State College, Ames: Planting date slightly earlier than normal. Heavy rainfall especially in southern Iowa has damaged considerable acreage of corn. Due to extremely late date increased soybean acreage will probably not be suitable for seed harvest. Late planted beans in southern Iowa probably for hay. Acreage approximately 18% less than 1945. July 1 condition 105-110% of normal. Current moisture supply entirely adequate.

Howard L. Roach, Plainfield, for northeast: Planting date normal. Acreage 80% of 1945. Current moisture supply adequate. Beans look fine. 100% of normal for season.

KANSAS

E. A. Cleavinger, extension division, Kansas State College, Manhattan, for eastern: Beans planted on normal date or slightly early. Acreage 75% of 1945. July 1 condition 90% of normal. Current moisture supply low. Crop dependent on seasonal rains.

MINNESOTA

John W. Evans, Montevideo, for southwest central: Planting date normal to slightly delayed. Rains prevented some late season plantings. Acreage planted 110% of 1945. July 1 condition 95% of normal. Current moisture supply ample, excessive in low ground. 10% acreage for hay.

N. C. Bieter, Farmer Seed & Nursery Co., Faribault, for central and southern: Planting date normal. July 1 condition normal or better. Moisture supply good. Weather much warmer than last year. Much better prospect for ripe crop before frost than last year at this time. Fields cleaner, much better cultivation. Acreage about same as 1945.

W. G. Green, Lakefield, for southwest: Planting date about normal or better. Acreage about 15% more than 1945 this year. July 1 condition 100% of normal. Moisture supply ample. Very little loss from floods or hail. Crop promises to be largest ever raised in this territory.

MISSOURI

Albert R. Craven, Missouri Soybean Co., Caruthersville, for southeast Missouri, north-

east Arkansas and west Tennessee: Planting date average for entire season 10 days later than normal. 15 days earlier than 1945. Acreage 95% of 1945. July 1 condition 105% of normal. Current moisture supply adequate. Our odds on, odds off percentages are due to long planting season and reflect replacement of abandoned cotton as well as general upward tendency in acreage and consistent improvement in cultural practices.

J. Ross Fleetwood, extension specialist, University of Missouri, Columbia: Planting date 5 days earlier than normal, much earlier than last year. Acreage 85% of 1945. July 1 condition better than normal and much above last year. Current moisture supply ample in most areas. About usual acreage, 15-20% will be used for hay. Fine early spring enabling planting big acreages of corn and oats probably reduced soybean acreages somewhat. Lower yields last year may also have reduced intentions some.

NEBRASKA

John Slatensek, agronomist, Lincoln, for east central: Planting date slightly earlier than normal. Acreage appears to be somewhat smaller than 1945. Splendid growth as result of timely rains and wet weather. Excellent surface and subsurface moisture supply.

OHIO

Clark S. Eberle, Ohio Seed Improvement Association, Columbus: Amount of seed beans sold was high. They did not move as early as usual, but many of our growers sold out this spring. I believe planting date not too much different from last year.

W. G. Weigle, Marsh Foundation Farms, Van Wert, for northwest: About 15% beans planted in April or early May; 50% in late May; 20% early June; 15% after June 15. Our normal planting date is May 10 to June 10. Rainfall damage to bean crop not as great as first expected. Not over 5% of beans being replanted and less than 2% of corn acreage being torn up to be planted to beans. 1946 acreage about 10% less than 1945. In spite of increased corn prices at planting time farmers went ahead with original soybean acreage intentions. Due to water damage, too early planting and delayed planting, general condition of all fields about 80% of normal. Recent local showers with warm weather keeping beans growing rapidly.

Condition of soybean crop throughout state probably more variable this year than in any past years, due mainly to variable weather conditions. Weeds sure to be problem in early planted beans. Wet weather has prevented any type of cultivation.

ROWED BEANS SCORE AGAIN

Rowed soybeans in Illinois came through a beating rain in June which destroyed many solid plantings, reports H. I. Cohn of Valley Farms Co., Carrollton, Ill.

Valley Farms are growing over 2,000 acres of Lincolns in rows this year.

Mr. Cohn writes: "On neighboring farms where beans were planted solid many plantings did not survive a beating rain which caked the surface to a depth of over one-half inch while the rowed beans came through in good shape.

"Of course, we put rotary hoes over our fields as soon as we could get in them but even before we could get into some of the fields the beans planted in rows had cracked the surface crust and you could follow the rows as far as you could see down the fields by the ridge thrown up by beans underneath.

"This demonstrates another important reason why beans should be rowed because it looks to me as though there will not be over one-half stand on solid drilled fields planted at the same time as some of our rowed beans, and this in spite of the use of rotary hoes."

Poultry Feeding

GREATER USEFULNESS OF SOYBEAN OIL MEAL IN CHICKEN DIETS. Report of the Chief of the Bureau of Animal Industry, 1945.

When laying hens were fed a diet consisting largely of corn and soybean oil meal with small quantities of alfalfa leaf meal and mineral and vitamin supplements, hatchability decreased as the level of soybean oil meal increased from 0 to 40 percent in increments of 10 percent.

The results justify the general belief that soybean oil meal is a less desirable substitute for animal protein supplements in mashes for breeding stock than in other feeds.

SPROUTED SOYBEANS, MASH AND GRAINS FOR EMERGENCY FEEDING OF WHITE LEGHORN PULLETS. By C. S. Platt. New Jersey Agricultural Experiment Station. *Poultry Science*, November 1945.

In studies of emergency feeding three pens of Leghorn pullets were subjected to a change for 6 days from the regular feeding schedule of dry mash and grain.

In one group the mash was removed and grain fed: in the second the grain was discontinued, allowing free access to the mash; while in the third a mixture of sprouted soybeans and minerals was fed as a substitute for the mash.

A substantial drop in egg production occurred in January in the group restricted to a grain diet. There was a much greater drop in production by the group restricted to mash. But the substitution of sprouted soybeans and minerals was effective in maintaining production.

When sprouted soybeans and minerals were fed as a supplement to grain and mash during the spring months, there was no significant effect on egg production, but a saving of approximately 40 percent in the quantity of mash consumed.

SOYBEAN OIL MEAL IN POULTRY RATIONS. By T. B. Clark and C. J. Cunningham. Bulletin 325, West Virginia Agricultural Experiment Station, Morgantown. West Virginia.

The part that soybean oil meal can play in poultry rations is shown in experiments conducted by the Agricultural Experiment Station of West Virginia University.

T. B. Clark and C. J. Cunningham, poultry husbandmen, carried out feeding experiments at Reymann Memorial Farm. In September 1942 they started growth trials with New Hampshire chicks. They also conducted laying trials with about 50 range-reared New Hampshire pullets.

The experimenters report that, for egg production, a mash in which soybean oil meal is the sole source of supplementary protein will give satisfactory results when properly balanced with vitamins and minerals.

Because of variability in soybean oil meal and in other feed ingredients as well, some animal protein should be included in the starting and hatching rations. While these trials do not show conclusively how much animal-protein supplement is necessary, they do suggest that for starting and growing mashes and for hatching rations the minimum level is around 2½ percent.

For rapid growth such as in broiler production, the animal protein should be supplied in part by fish meal.

SOYBEAN OIL MEAL AS A PROTEIN SUPPLEMENT FOR BABY CHICKS. By L. R. Richardson, A. G. Hogan and H. L. Kempster. Research Bulletin, 395, Missouri Agricultural Experiment Station, Columbia.

A ration which contains soybean oil meal as the only protein supplement is satisfactory

for the growth of baby chicks when it is supplemented with riboflavin. The chicks grow at a rapid rate and there are very few abnormalities. The rate of growth is almost as rapid when the soybean oil meal is supplied at level of 25 percent as when it is supplied at a level of 30 or 40 percent. When supplied at a level of 15 or 20 percent the rate of growth is markedly reduced.

Oils

FLAVOR REVERSION IN SOYBEAN OIL. 1. Preliminary Spectral Absorption and Isolation Studies. By Calvin Golumbic, C. J. Martin, and B. F. Daubert. Contribution No. 592 from the Department of Chemistry, University of Pittsburgh. *Oil & Soap*, June, 1946.

The ultra-violet spectral changes produced in soybean oil by treatment with heat and visible and ultra-violet light have been determined. Heat treatment appears to cause more deep-seated changes than does exposure to visible or ultra-violet radiation. Distinct flavor changes occur in soybean oil under these different conditions.

A preliminary study is reported on the methods used to concentrate and isolate the substances responsible for the off-flavor of heat-treated soybean oil.

REPORT ON GERMAN PROCESSING OF FATS, OILS AND OILSEEDS. An official U. S. government report by U. S. Department of Commerce experts. 23 pages. $2.

A report on two German oilseed mills—Hansa-Muhle A. G., Hamburg, and Harburger Oelwerke Brinckmann und Mergell, Harburg.

The first is one of the most famous mills in the world, partly because of its size and partly because it developed the widely used paternoster type of extraction apparatus.

Report has detailed descriptions of procedures used in both plants for oil extraction from soybeans and other oilseeds; also of phosphatide recovery, refinery of the oil, hydrolysis of fats for production of fatty acids, and other related processes.

GRITS and FLAKES... FROM THE WORLD OF SOY

The Borden Co. has announced plans for a large soybean plant in Fort Dodge, Iowa. Construction will start as soon as CPA approval is obtained.

* * * *

Feed Institute of Iowa will hold its annual meeting September 12 at the Savery Hotel, Des Moines, Secretary O. N. LaFollette announces. The Institute's annual feed school will be held at Iowa State College, Ames, the following day.

* * * *

Plans have been made to increase the soybean storage capacity of Farmers Cooperative Co., Dike, Iowa, by 250,000 bushels. The firm's processing plant recently sustained $3,000 damage by fire.

* * * *

Ralston Purina Co. will increase storage capacity of its Iowa Falls, Iowa, plant by 820,000 bushels, the firm has announced. Civilian Production Administration has authorized a $324,000 project.

* * * *

Soybeans cannot be sold as coffee, the Federal Trade Commission has ruled. The commission ordered the Burgess Seed and Plant Co., Galesburg, Mich., to "stop disseminating false advertisements concerning a species of soybeans which it has sold as a 'domestic coffee berry.'"

* * * *

Promotion of Clyde H. Hendrix, Clinton, Iowa, to president of the Pillsbury Feed and Soy Mills division, was announced in June. Operations of seven of these plants were recently merged.

* * * *

Pillsbury Mills has started construction of 300,000 bushels additional soybean storage facilities at its Centerville, Iowa, plant. The new storage will more than double the present capacity.

* * * *

General Mills, Inc., entertained a number of dealers and friends at its Belmond, Iowa plant June 5, with a 5:30 p. m. dinner following. Speakers included Dr. Martin G. Weiss, George M. Strayer, Mark G. Thornburg, Whitney Eastman and Clarence Hidding. Walter Flumerfelt, manager of Belmond operations, was in charge of the party.

* * * *

Rock Island Lines has issued soybean maps for the states of Illinois, Iowa, Minnesota, Kansas, Missouri, Nebraska and Arkansas. Each map shows production in bushels by counties for 1943, 1944 and 1945. Several of the maps include 1940 production figures.

* * * *

The West Tennessee Soy Mills, Tiptonville, Tenn., has just completed additional concrete storage tanks of about 250,000 bushel capacity, according to P. T. Pinckney, manager. This is a two-expeller plant.

* * * *

Additional soybean storage is being erected at the Wilson Soybean Mill, Wilson, Ark., and will be completed in time for the new crop. This mill is also installing a solvent extraction plant.

ADVANCEMENT BY PURINA COMPANY

Eldred A. Cayce, assistant vice president and assistant director of purchases of the Ralston Purina Co., has been elected vice president and director of purchases, President Donald Danforth has announced. Mr. Cayce succeeds J. H. Caldwell, Sr., who retired from the company and opened his own brokerage business in St. Louis.

Mr. Cayce has been with Purina for 29 years, starting with the company at its Nashville plant.

E. A. CAYCE

He joined the buying department in St. Louis in January 1944, and became assistant vice president in November 1945. Mr. Cayce is a member of the Missouri Bar Association and St. Louis Merchants Exchange.

—s b d—

GENERAL MILLS WILL BUILD AT KANKAKEE

James F. Bell, chairman, and Harry A. Bullis, president of General Mills, Inc., have announced completion of plans and preliminary arrangements for construction of a new organic chemical plant to be located at Kankakee, Ill. The new facility will be specially designed for the production of fatty acids and fatty acid derivatives. Fatty acids — processed from animal, vegetable, and marine fats and oils — are used in the protective coating and other industrial fields.

The new plant will be under the supervision of Arthur P. Berry, manager of fatty acid operations. Location of the plant will be on a 30-acre site lying about 1 mile south of the city limits of Kankakee.

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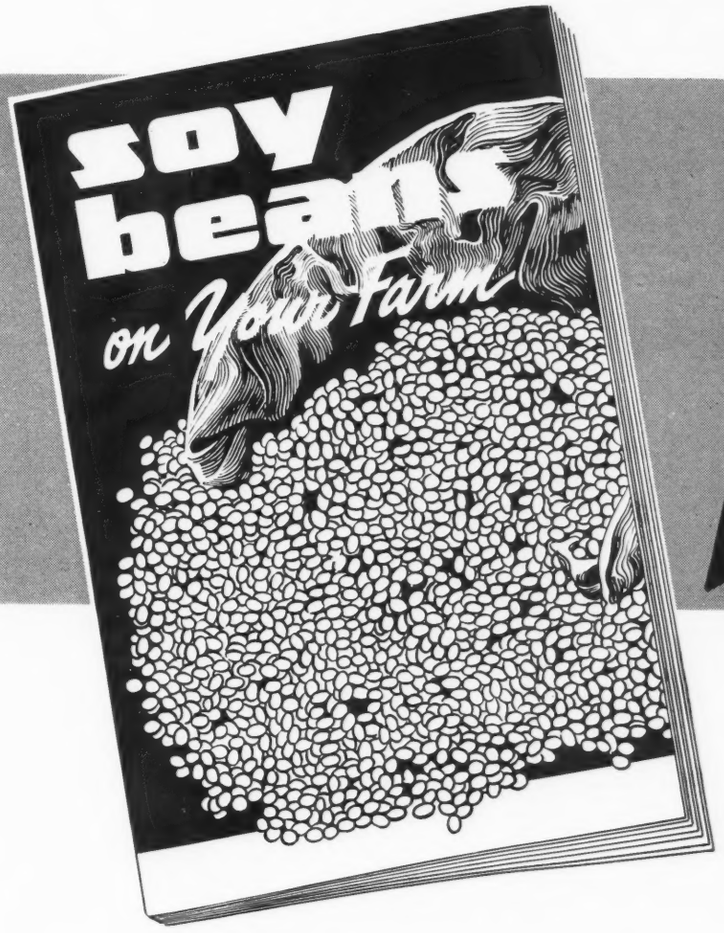

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Agronomy Dept., Fort Wayne 2, Indiana
Please send me a copy of *"Soybeans on Your Farm."*

Name.....

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City.....State.....

The general offices of the Doughboy Industries, Inc., manufacturers of soy food mixes, New Richmond, Wis., were burned to the ground June 10.

* * * *

T S Homogenized Mayonnaise, made with a refined soybean oil base, was placed on the market in June by Tom Soya Foods, Inc., Williamsport, Penn. The product is processed in the latest stainless steel equipment. Another item to be added soon to the Tom Soya line will be Homogenized Salad Dressing.

* * * *

B. M. Groom, executive secretary of the Greater North Dakota Association, Fargo, and longtime booster for soybeans in that state, discontinued his services as secretary recently, on being elected chairman of the board of directors of that organization.

* * * *

A. A. Bame of the Industrial Soya Co., Toledo, Ohio, and Mrs. Bame, are flying to England for a month's vacation at Selby, in Yorkshire.

* * * *

J. B. Sedberry, Inc., moved their Franklin, Tenn., office into new quarters June 10. The new building provides 12,000 equare feet of space for an executive, three private offices and main office.

MILES RETIRES FROM USDA GRAIN BRANCH

R. T. Miles, who has been in charge of general field headquarters of Federal Grain Supervision at Chicago (now regulatory and inspection division, Chicago office, Grain Branch) since 1920, retired at the close of business on June 30, 1946, following a career of 30 years in government service. Mr. Miles retired to conserve his health, which has not been too robust in recent months.

The position at Chicago being vacated by Mr. Miles will be filled by the appointment of Hazen P. English, now chairman of the Board of Grain Supervisors at Chicago, also a career man in government service of 29 years' standing. William L. Ingles will function as acting chairman of the board.

Mr. Miles joined the Department in 1916, the year in which the Grain Standards Act was passed, and brought to the service a wealth of experience in grain merchandising as well as grain inspection. He was chief grain inspector of the Galveston Cotton Exchange and Board of Trade for 3 years immediately previous to entering the federal service.

Mr. Miles became associated with the administration of the Grain Standards Act at a time when federal activities in this field were new and untried. The success of the undertaking is now well established. A large measure of the credit for the progress and results must be attributed to Mr. Miles' capacity for organization, administration and forthright dealing with his associates and the public.

—s b d—

Morris Katz, recently discharged from the armed forces, has resumed his position as vice president in charge of sales of the Max Katz Bag Co., Indianapolis, Ind. Mr. Katz, a lieutenant in the Quartermaster Corps, served 15 months overseas with the Far East air forces in New Guinea, Australia and the Philippines. Mr. Katz will supervise all sales and promotion for the firm which has specialized in burlap and cotton bags, canvas products and twines for more than 35 years.

Open Frankfort Mill

Opening of the new Swift & Co. soybean mill at Frankfort, Ind., was observed June 20 with 200 guests, including soybean growers, state, county and city officials, agricultural and business leaders and grain elevator operators and managers present at the dinner given by the company. Sam Hollett, manager, presided at the program. Preceding the party the guests inspected the new mill.

Brief talks welcoming the new industry to Frankfort and Indiana were given by Gov. Ralph Gates, Lieut. Gov. Richard T. James and James Himmelwright, president of the Frankfort Chamber of Commerce. Dr. W. J. Morse, chief agronomist, USDA, Washington, also spoke briefly.

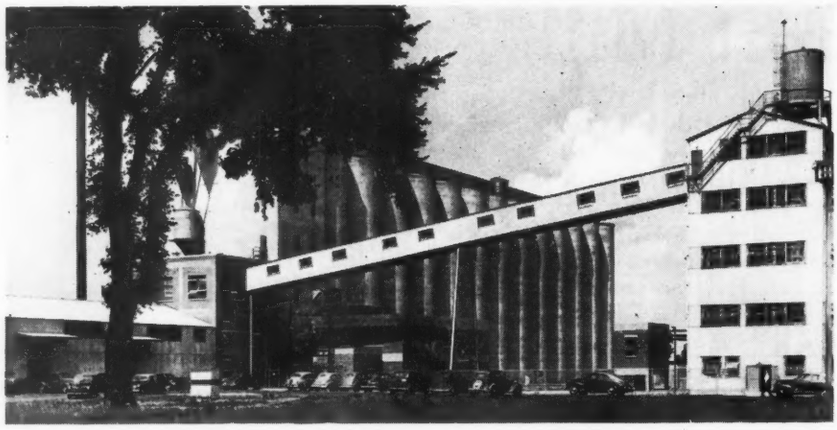
Dr. Frederick L. Hovde, president of Purdue University and principal speaker on the program, discussed "The Future of American Research." Dr. Hovde, who served the government as a research administrator during the war, stressed the importance of research as it affects the future of the United States.

Among the prominent guests who were introduced were: Hobart Creighton, Warsaw, Ind., speaker of the Indiana House of Representatives and well known poultry expert; Dr. J. L. Cartter, Regional Soybean Laboratory, Urbana, Ill.; Dean Harry J. Reed, Dr. N. J. Volk, Kellar E. Beeson and other representatives from the school of agriculture at Purdue; George Strayer, editor of *The Soybean Digest;* Fred Sale, executive secretary of the Indiana Grain and Feed Dealers Association; James P. Stanfield, officer in charge, grain branch, USDA, Indianapolis; L. M. Vogler, state director, Production and Marketing Administration, Indianapolis; H. H. Hampton, vice president in charge of industrial development, Nickel Plate Railroad; Lewis P. East, general agricultural agent, The Pennsylvania Railroad; M. D. Guild and J. E. Kiefer of the Indiana Grain Cooperative, Inc.; and Harry Truax and Iran Moore, Indiana Farm Bureau Co-op Association, Inc.; and Eugene Gwaltney, Delaware County, Ind., who raised 51.9 bushels of Lincoln soybeans to win the 1945 Indiana soybean yield contest.

John Holmes, president of Swift & Co., headed a group of company executives attending the opening.

The new solvent extraction plant includes a battery of 26 concrete storage bins, with a million bushel capacity; two main processing buildings, including a five-story extraction building and a three-story bean preparation and meal conditioning structure; and five auxiliary units. The extraction unit has a daily capacity of 150 tons.

The most modern equipment and facilities available have been incorporated in the new mill. Special attention was given in planning the mill to provide for maximum



The new extraction plant of Swift & Co., Frankfort, Ind.

safety in the operation of all departments, and to assure uniform high quality of products through the use of automatic equipment and controls.

A complete testing laboratory in charge of a graduate chemist provides for continuous analysis of the soybean products.

Swift & Co. operates five other soybean mills, located at Champaign and Cairo, Ill.; Fostoria, Ohio; Des Moines, Iowa; and Blytheville, Ark.

Most of the Frankfort mill's production of soybean oil will be shipped to company refineries. The soybean oil meal will be sold as livestock feed to farmers, feed dealers and mixed feed manufacturers.

Thirty employes comprise the staff in the new plant, with Hollett, a 31-year Swift veteran and former manager of the company's mill as Fostoria, as manager. A. J. Sibley will be plant superintendent and H. B. Parker, sales and traffic manager.

—s b d—

DR. R. D. LEWIS LEAVES OHIO STATE

Resignation of Dr. Robert Donald Lewis, chairman of Ohio State University's department of agronomy, to become director of the Texas Agricultural Experiment Station September 1 is announced at Columbus, Ohio. The Lewises will leave Columbus in August.

Dr. Lewis, noted for his research in hybrid corn development, has been on the Ohio State Staff since 1930 and since 1936 he has also served the U. S. Department of Agriculture's Bureau of Plant Industry as agent of the division of cereal crops and diseases. In 1940 he was made chairman of the university agronomy department. As chairman he has had charge of the agronomic work for soybeans in Ohio.

The Ohio State faculty member is director of the Ohio Hybrid Seed Corn Producers Association. He has served on numerous committees of the American Society of Agronomy and other agricultural groups.

Market Street

We invite the readers of THE SOYBEAN DIGEST to use "MARKET STREET" for their classified advertising. If you have processing machinery, laboratory equipment, soybean seed, or other items of interest to the industry, advertise them here.

Rate: 5c per word per issue.
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WASHINGTON Digest

Future of Soys and the OPA

The price you get for soybeans this fall, and the price you pay for feed concentrates, depends upon what Congress and the President do with price control legislation.

If price control is abandoned, there is little doubt in the Department of Agriculture that the strong demand for fats and oils will push soybean prices up considerably higher than the $2.04 a bushel price support, or that the price of soybean meal will climb.

Some officials think that on a free market the supply of protein meals will be enough to supply "requirements"—expressed in terms of what producers will be willing to pay.

If price control is continued, the old ceiling is expected to remain in effect.

Producer soybean ceilings would have remained unchanged under the old Senate-House compromise OPA bill which President Truman vetoed.

Regardless of what happens to price control legislation, the government subsidy on soybeans is almost sure to be ended. This is estimated to have cost about 48 million dollars during the fiscal year just closed.

Department of Agriculture and OPA had agreed to raise linseed oil ceilings enough to eliminate the subsidy had the old bill gone through.

The vetoed OPA would have cut farm and food subsidies about 58 percent, compared with a cut in total subsidy funds of 50 percent. Total farm and food subsidies were whittled down to approximately 750 million dollars, compared with nearly 1 billion, 800 million dollars for the year just ended.

Department of Agriculture's intent, until the President's veto changed things, was to drop all of the lesser subsidies, and to concentrate subsidy spending on the major cost-of-living items—such as meats, dairy, flour and sugar.

The government's legal authority to allocate short-supply commodities, to force set-asides, to control inventories, to establish quota limitations, etc., is covered by the Second War Powers Act, and is unimpaired by the ending of price controls.

Most set-asides involving government purchases have been reduced to zero until the legal situation clarifies.

But the 10 percent set-aside on protein meals is continued as before, since this is a set-aside for distribution rather than for direct government buying.

Also continued are the government's control over feed inventories, and quota limitations on fats and oils manufacturers.

Under the new quotas recently announced, the margarine quota remains the same at 95 percent of the base period. Other edible fats and oils quotas are reduced from 88 to 82 percent of the base period for the third quarter, but manufacturers are given emergency quotas of 6 percent for distribution into 25 short-supply states:

Virginia, West Virginia, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Florida, Kentucky, Tennessee, Louisiana, Texas, Oklahoma, Arkansas, Colorado, New Mexico, Arizona, California, Oregon, Washington, Idaho, Montana, Nevada, Utah and Wyoming. A total of about 30 million pounds of fats and oils is expected to be moved into these states by the order.

The suspension of delivery restrictions on crude soybeans, cottonseed, peanut and corn oils to refiners is continued through September.

Here is an official summary of the War Food Orders affecting fats and oils which continue temporarily in effect regardless of the fate of price control:

WFO 29—Restrictions on use and delivery of cottonseed, peanut, soybean and corn oil.

WFO 42—Restrictions on use of fats and oils in edible fat or oil products.

WFO 42A—Restrictions on use of fats and oils in protective coatings, coated fabrics and floor coverings.

By PORTER M. HEDGE
Washington Correspondent for The Soybean Digest

WFO 42B—Restrictions on use of fats and oils in soap.

WFO 43—Restrictions on use, processing, sale and delivery of coconut, babassu, palm kernel, and other high lauric acid oils.

WFO 67—Restrictions on inventories of inedible tallow and grease.

WFO 124—Restriction in inventories of linseed oil.

WFO 130—Restrictions on purchase, sale, and use of peanuts of 1945 crop.

WFO 9—Restriction on delivery, receipt, and use of soybeans.

Soybean program—The 1945 crop soybean program contracts between Commodity Credit Corporation and soybean processors will continue in effect. These contracts provide that during any period when ceiling prices for soybean oil and meal are not established by OPA, the last such prices shall be used for all purposes of the contract, and the processor shall not sell oil and meal from the 1945 crop in excess of such prices unless authorized in writing by CCC.

Fats and Oils Procurement

The Department of Agriculture is attempting to get out of the brokerage business involved in handling procurement of fats and oils for foreign relief.

In a recent vaguely worded statement on tentative requirements for the 1946-47 year, USDA announced in effect that it intended to let foreign governments buy for their own account after carrying out commitments for the fiscal years just closed.

USDA anticipates that civilian fats and oils supplies will be limited during the coming year to about the same per capita consumption as the year just closed—approximately 41 pounds per person.

Succeeds Berger Fred Entermille, former assistant western region director of the old AAA, has succeeded Walter Berger of PMA's grain branch in charge of protein meal and other feed programs.

Entermille is an Oregon farmer, has been with AAA since its beginning, starting originally as a county committeeman. He came to Washington in 1939, and was closely associated in AAA work with N. E. Dodd, now Undersecretary of Agriculture.

W. H. Jasspon, head of PMA's fats and oils branch, has returned from a months'-long business trip to Argentina where he is reported to have been unsuccessful in negotiations to buy Argentine flaxseed because of Russian competition.

Jasspon's mission was to purchase flaxseed for the account of the old Combined Food Board, now the International Emergency Food Council.

Bill for Farm Research The House agriculture committee is thinking in terms of research, new industrial uses for farm products, improvements in processing and marketing as one of the major long-time answers to the postwar farm market problem.

The committee has rolled four separate measures into one big omnibus research-marketing-new uses measure, dubbed the "Santa Claus" bill because it has something for everyone in agriculture.

The measure has bi-partisan support, and is expected to receive the official blessing of President Truman. If so, the measure has a fair chance to pass during this session of Congress.

The omnibus bill, titled HR 6932, has been assembled from these measures:

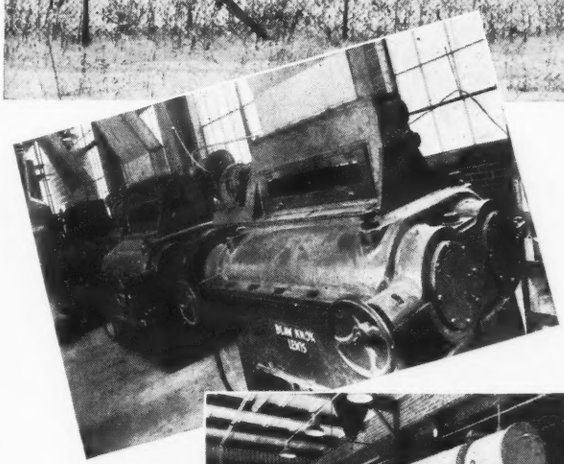
From HR 6548, introduced by Congressman Flannagan (D-Va.) and the late Senator Bankhead of Alabama, are provisions aimed chiefly at new industrial uses of farm products, including soybeans. Funds would start at $9,500,000 for the next fiscal year, and build up until 41 million dollars is reached. Bulk of the money would be apportioned to the states, mainly to state experiment stations.

From S 1908 sponsored by a dozen senators, are provisions directing the Secretary of Agriculture to develop new farm crop uses, markets, and improved methods of handling. He also would have authority to use surplus supplies and plants now in the hands of the government in processing surpluses. This section is aimed mainly at utilization of farm surpluses and finding new farm crop uses.

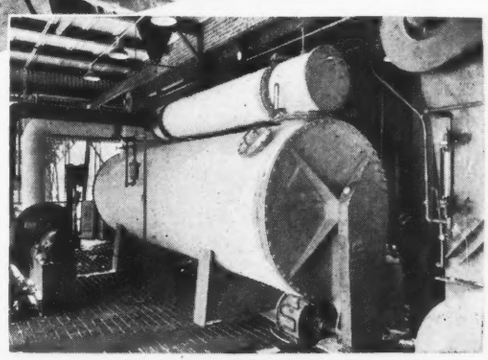
From HR 6692 introduced by Congressman Hope (R-Kan.), is authority to set up a new Marketing Administration within the Department of Agriculture, both for research and marketing services. Department of Agriculture has opposed this feature, since it would split up its newly-established Production & Marketing Administration, which rolls both functions into one.

From HR 295 by Congressman Andresen (R-Minn.) would come authority for plant introduction and breeding research with a view to new chemical and industrial crop uses.

MILLION DOLLAR SOLVENT PLANT puts each operation in separate building



Flaking Mills



Desolventizer

Seven Blaw-Knox plants have been awarded the Army-Navy "E", and have regularly received renewal stars for continued high achievement in the production of war materiel.

REPLACING a plant destroyed by fire, this large mid-west soybean solvent extraction plant is designed to reduce the fire risk greatly by isolating the operations into separate buildings.

This plant is typical of many projects entrusted to Blaw-Knox for design, assembly and fabrication of equipment, and for initial operation and training of personnel.

Blaw-Knox supplies, under unified responsibility, all or any part of the requisite services for building and equipping a new plant, or modernizing an older one, for the process industries.

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BLAW-KNOX IMPLEMENTS THE PROCESS INDUSTRIES

In The MARKETS

• EXPORTS OF SOYBEAN PRODUCTS. Reported by Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce.

	1943	1944	1945
		POUNDS	
Soybean oil, refined—total	33,988,510	49,249,113	35,203,510
U. S. S. R.	16,129,893	35,316,537	11,366,810
Cuba	9,060,439	1,782,809	11,074,901
Canada	2,188,492	4,152,695	3,028,492
French West Indies	345,976	3,054,645	2,782,050
Iceland	1,031,113	1,868,926	1,775,706
Greece			900,798
Spain			873,861
Curacao (N.W.I.)	310,844	324,857	596,756
Saudi Arabia			500,587
Panama Republic	103,431	403,670	464,729
New Zealand	54,026	279,109	315,214
Colombia		260,303	229,315
Costa Rica	183,757	4,132	133,792
Venezuela		382,158	116,817
Soybean oil, crude—total.	21,192,796	13,029,050	3,073,549
Cuba	6,251,410	688,286	2,053,480
Canada	13,059,380	866,806	671,050
French West Indies			228,504
U. S. S. R.	1,323,997	6,936,584	
United Kingdom	514,016	4,468,776	
Soybeans—total	79,730,995	30,027,249	414,361,204
France			175,752,800
Canada	5,575,252	19,462,010	79,019,552
Belgium			39,912,960
Netherlands			36,172,050
Norway			33,232,200
United Kingdom	71,529,812	9,885,235	30,054,371
Greece			14,815,889
Switzerland	2,235,310		
		TONS	
Soybean cake and meal —total	14,908	13,693	8,183
Greece			5,032
Cuba	11		2,061
Canada	14,821	13,613	880

• ANALYSIS OF SOYBEAN PRODUCTS. A summary by Wood-son-Tenent Laboratories during May.

Average Chemical Analysis of Soybeans Grown in Tennessee, Arkansas, Mississippi, Missouri

	Oil (Oil calculated to 14% moisture) %	Oil Yields per bushel* lbs.
Average	17.5	8.0
Month's average	19.2	9.1
Month's lowest	13.9	5.7

Average Chemical Analysis of Soybeans Grown in Minnesota, Wisconsin, Michigan, Ohio, Indiana, Illinois, Iowa, Kentucky, Virginia, Kansas, Nebraska

	Oil (Oil calculated to 14% moisture) %	Oil Yields per bushel* lbs.
Average	17.5	8.0
Month's highest	20.0	9.6
Month's lowest	15.3	6.6

Soybean Oil Meal — Average of All Soybean Oil Meal Analysis

	Moisture %	Oil %	Protein %	Standard
Average	12.81	4.65	43.53	58
Month's best	13.60	3.48	44.63	40

Analysis of Soybean Oil

	F.F.A. %	Gardner-Break %	Moisture & Volatile %	-Refining Loss %	Color (red)
Average	0.7	0.85	0.15	7.3	8.5
Month's best	0.8	0.32	0.12	4.8	8.2

* Calculated 12.50% moisture and 5% oil left in meal.

• INSPECTIONS. Inspected receipts of soybeans dropped sharply in May to a total of 2,182 cars compared with 4,501 cars in April, and 5,953 cars in May 1945, according to inspectors' reports to the Grain Branch of the Production and Marketing Administration. The average for the month of May for the crop years 1940-44 was 3,532 cars. Inspected receipts for October-May this season were 78,434 cars compared with 74,541 cars for the same period last season.

The quality of soybeans inspected in May continued good, 93 percent grading No. 2 or better compared with 95 percent in April.

• COMMERCIAL SOYBEAN STOCKS. Production and Marketing Administration's commercial grain stock reports for the last three weeks in June and the first week in July.

U. S. Soybeans in Stock and Afloat at Domestic Markets (1,000 bu.)

	June 11	June 18	June 25	July 2
Atlantic Coast	101	101	89	74
Gulf Coast	88	88	92	
Northwestern and Upper Lake	84	631	564	440
Lower Lake	1,995	1,725	1,431	1,146
East Central	1,802	2,216	1,393	1,200
West Central Southwestern & Western	624	560	530	462
Total current week	5,454	5,321	4,099	3,322
Total Year ago	7,847	6,720	6,193	5,101

• TUNG OIL IMPORTS. Exports of Chinese tung oil, cut off during the war are expected to total about 25,000 short tons during 1946. Up to 1937, the U. S. imported about 70 percent of China's total tung oil shipments, which averaged 89,000 tons in 1933-37. China is the world's foremost producer of tung oil, which has important industrial uses, especially in the manufacture of paints and varnishes.

• STANDARD SHORTENING SHIPMENTS. By members of Institute of Shortening Mfgrs., in pounds.

June 8	7,398,035
June 15	7,697,764
June 22	6,719,897
June 29	5,826,047

Government Orders

• REDUCE PROTEIN IN MIXED FEEDS. Amendment 9 to protein meal order WFO-9 was issued by the U. S. Department of Agriculture (1) reducing the total quantity of protein meal that may be used in the manufacture of mixed feeds, and (2) permitting a mixed feed manufacturer to use his protein quota in the manufacture of either livestock or poultry feeds in accordance with the requirements of his trade territory.

The amended order, effective July 1, 1946 allows each mixed feed manufacturer to use a net quota of protein meal, during any calendar quarter, equal to the larger or (1) 85 percent of the quantity used by him in the manufacture of mixed feed in the corresponding quarter of 1945, or (2) 25 tons. No limitation is imposed with regard to the use of the quota as between the manufacture of poultry feed and livestock feed.

The quota allowance supersedes restrictions in effect since January that no mixed feed manufacturer could use more high protein meal in the manufacture of mixed feed other than poultry feed than the same quantities used for these purposes in the corresponding quarter of 1945. Beginning in May, 1946 the use of protein meal in the manufacture of poultry feed was restricted to 85 percent of the quantity used in the corresponding months of 1945.

• EDIBLE OILS DISTRIBUTION. The U. S. Department of Agriculture has announced quotas for the use of fats and oils in producing margarine, shortening, and cooking and salad oils, for the period July 1-September 30, 1946. The action was taken through a new amendment to War Food Order 42.

The quota for margarine remains unchanged at 95 percent of the base period. (The base period on margarine is the corresponding quarter in 1944.)

Quotas on other edible fats and oils are reduced from 88 percent of the base period in the second quarter to 82 percent for the

third quarter. (The base period for these edible fats and oils is the average usage in corresponding quarter of 1940 and 1941.)

To relieve the extreme fats and oils shortage conditions in 25 Western and Southern states, an emergency quota amounting to an additional 6 percent is authorized for the quarter. This action will channel about 30 million pounds of fats and oils into the following states: Virginia, West Virginia, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Florida, Kentucky, Tennessee, Louisiana, Texas, Oklahoma, Arkansas, Colorado, New Mexico, Arizona, California, Oregon, Washington, Idaho, Montana, Nevada, Utah, Wyoming.

• PROTEIN MEAL SET-ASIDE CONTINUED. The U. S. Department of Agriculture has announced that until further announcement processors will be required to set aside 10 percent of their production of soybean, cottonseed, linseed, and peanut meals.

The quantity ordered set aside beginning January 21, when the set-aside order was reinstated, was 5 percent through March 31. It was then raised to 10 percent, and has been continued at 10 percent since that time.

Processors are being instructed to ship the set-aside meal for use in designated states which are short of their equitable share of supplies of protein meal.

Shipments to date have been directed to 41 states. These are Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, New York, Pennsylvania, Kentucky, Michigan, Missouri, Nebraska, Wisconsin, Delaware, Maryland, Virginia, West Virginia, North Carolina, Tennessee, Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina, Texas, Arizona, California, Colorado, Idaho, Kansas, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming.

Shipments directed from January 21 through June 30 total 164,000 tons. The meal is being sold by the processors through regular trade channels in the designated states.

• SUSPENSION CONTINUED. The U. S. Deparment of Agriculture has continued through September 30, 1946, the suspension of restrictions on deliveries of crude cottonseed, peanut, soybean and corn oils to refiners for refining purposes, under War Food Order 29. Previously, the suspension had been continued through June 30, 1946.

Authorization for delivery of these four crude oils to all other users, however, will continue to be obtained from the fats and oils branch of the Production and Marketing Administration.

This is a continuation of the suspension which has been in effect since September, 1943.

• OIL IN FISH CANNING. For canning fish, only soybean oil may be used without regard to quotas under Amendment 25 to WFO 42, effective April 1. Previously, any oil had been allowed to be used for this purpose, without being charged against quotas.